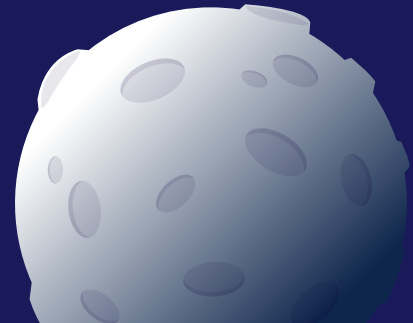




Algoverse



by Logic Legends

Structure

- Problem Statement
- Proposed Solution
- Draft and Tech Stack
- Workmode
- Schedule
- QnA



Algoverse

Problem Statement

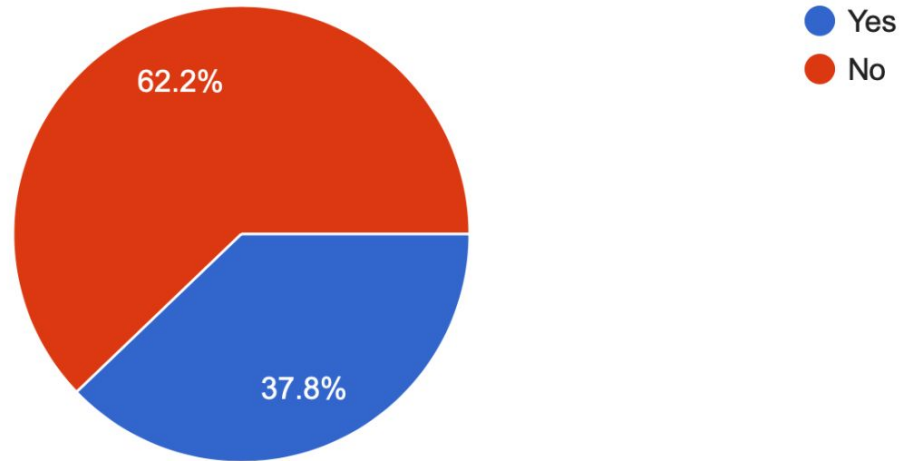
- Hard to grasp concepts
- Low test pass rates
- Lack of competitiveness in existing alternatives



Hard to Grasp Concepts

Do you think data structure and algorithm concepts are easy to learn?

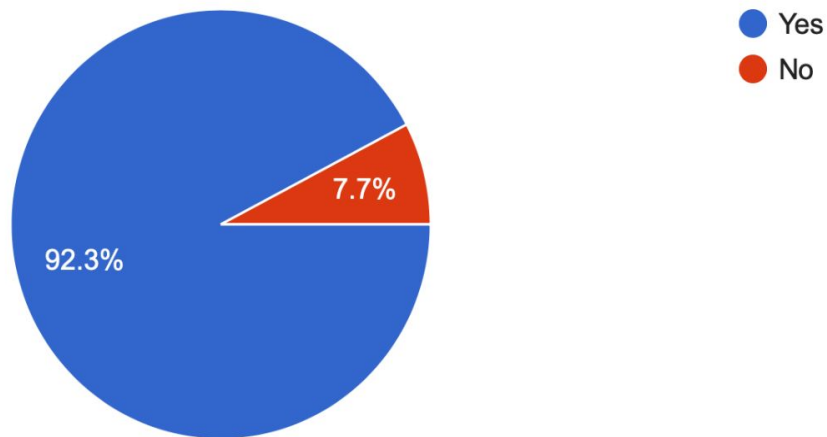
37 responses



Important Concepts

Do you think it's important to know concepts about data structures and algorithms for your career path?

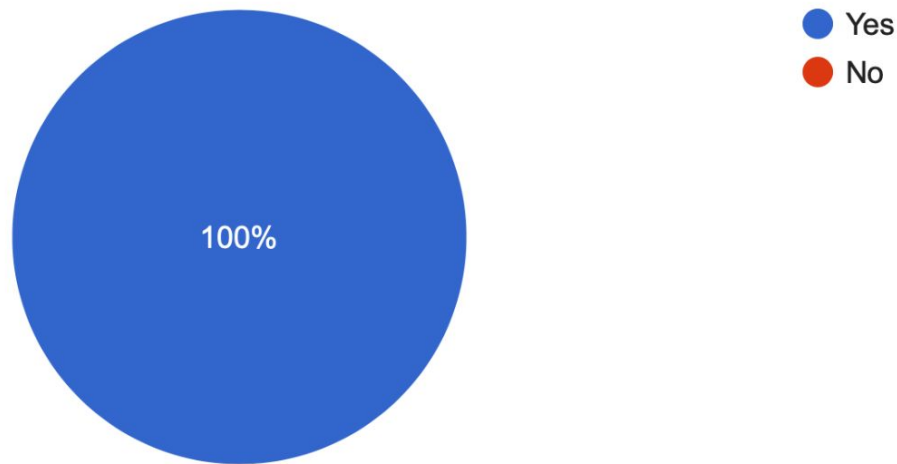
39 responses



Visualize and Simplify

Do you think it's easier to understand topics that are visualized in a playful way?

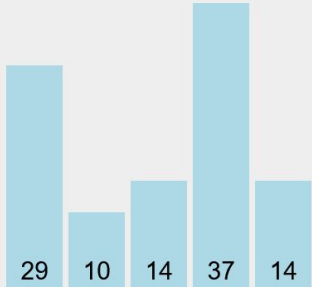
39 responses



Existing Alternatives

Main issues	Easy solutions
Info is divided in different websites	Provide a website with everything
Lack of usability	Minimalist and easy to use
Poor performance	Functional website

Existing Alternatives



Index	Value
1	29
2	10
3	14
4	37
5	14

slide 1 (1%)

1. Sorting Problem and Sorting Algorithms

Sorting is a very classic problem of reordering items (that can be compared, e.g., integers, floating-point numbers, strings, etc) of an array (or a list) in a certain order (increasing, non-decreasing (increasing or flat), decreasing, non-increasing (decreasing or flat), lexicographical, etc).

There are many different sorting algorithms, each has its own advantages and limitations.

Sorting is commonly used as the introductory problem in various Computer Science classes to showcase a range of algorithmic ideas.

Without loss of generality, we assume that we will sort only **Integers**, not necessarily distinct, in **non-decreasing order** in this visualization. Try clicking **Bubble Sort** for a sample animation of sorting the list of 5 jumbled integers (with duplicate) above.

Change Scale

Create(A)

Sort

1x

⏮ ⏪ ⏩ ⏭

About

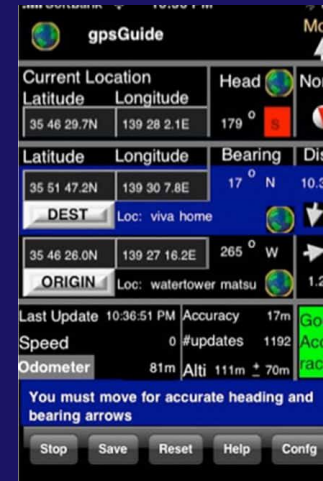
Team

Terms of use

Privacy Policy

Proposed Solution

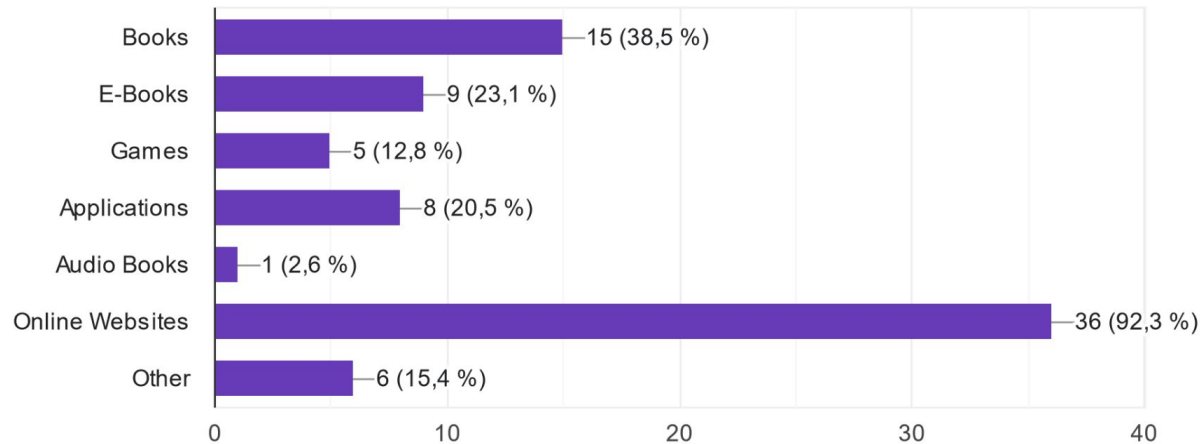
New knowledge base
for algorithms



Proposed Solution

What do you go for when trying to learn a new concept?

39 Antworten



Proposed Solution

- Easy to study
- Great usability
- Educational elements



Idea Expansion, further ideas,
talking about target audience /
Stakeholder

if the difference to competitors
is not enough → add new features
on top, like quizzes ...

Draft

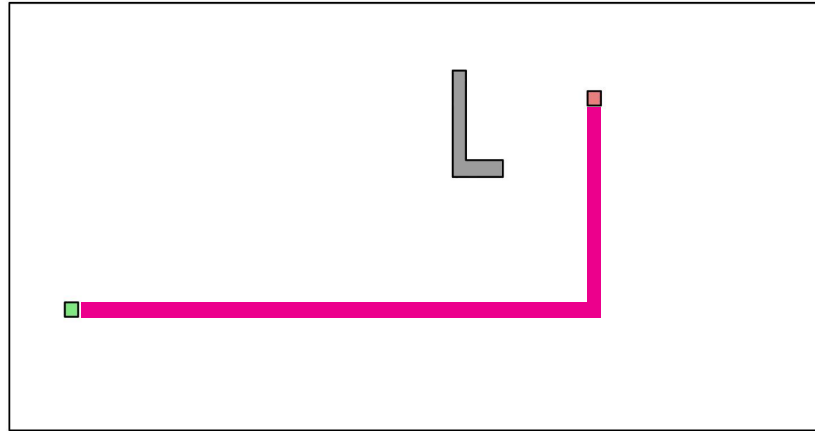
Pathfinding Algorithms

Dijkstra

DFS

BFS

Set speed of algorithm



Draft

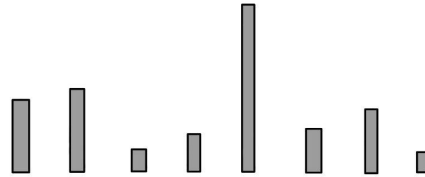
Sorting Algorithms

Bubble Sort

Insertion Sort

Selection Sort

Set speed of algorithm

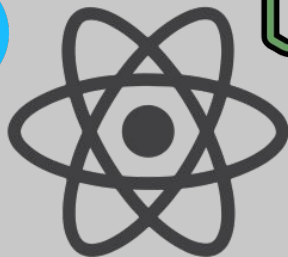


Input numbers to sort:

Random numbers

Tech Stack

Frontend



React JS



Backend



spring

Workmode

- Jira for Project management
- Scrum and Kanban
- Weekly Meetings on Sunday



Kanban Board



Role Assignment



Jarod Umland,
Frontend Developer
Projectmanagement



Matt Ruiz,
Frontend Developer
Documentation



Shin Yun Seong,
Backend Developer
Team Lead



Julius Brehme,
Backend Developer
Documentation

Schedule

Week	4	5	6	7	8	9	10	11	12	13	14	15
Frontend	Design and CI		Website Prototype		Visualizing Algorithms		Scaling			Testing and Bugfixing		
Backend	Implementing CI		Data Structures and API			Algorithm Implementation		Automated Tests				

Thank you for your attention



Q

A